



# TETON INTERAGENCY FIRE DISPATCH

## August 2011 OUTLOOK

August 1, 2011

### SUMMARY

Above normal snowpack and a wet spring were followed in July by a warming and significant drying trend, with temperatures near normal and precipitation half of average for July at some tracking stations. This pattern reflects a moderate Southwest monsoon pattern that has failed to produce rain as far north as sometimes occurs in July, which may be correlated with a transition from La Niña pattern to neutral conditions.

Live fuels remain green with normal to above-normal moisture for mid-season, though 1000-hour dead fuels and lower-elevation grasses are trending drier than normal. Fire activity remains below-normal through mid-season.

Temperatures and precipitation are expected to trend with normal climatological patterns from August through October. August fire potential is normal for open lower-elevation sites and forested areas with heavy downed fuels and standing dead timber. At higher elevations, fire potential is considered below-normal to normal.

### CLIMATE AND FUELS OUTLOOK

#### (1) Year-to-Date Precipitation for Area Weather Stations

Area precipitation for the water year (October through July) remains above normal, though at the Moose Weather station precipitation dropped from more than 200% above normal in May to 50% of normal in July. This water-year is tracking similarly to a prior flood-year, 1996-1997, which had 163% average year-to-date moisture through July, compared to 169% year-to-date moisture this year. The significant difference between these years: summer of 1997 saw some of the highest monthly rainfalls recorded at Moose, while in 2011 the summer rainfall pattern switched in mid-June from wet to dry.

Table 1a: Precipitation at Moose Weather Station (Grand Teton National Park)

		Oct-April	May	June	July	Summer YTD total (May-July)	YTD total
<b>Monthly Precipitation</b>	Normal	13.58	1.94	1.73	1.15	4.79	18.37
	1987-88	9.18	1.61	0.75	0.43	2.79	11.97
	1996-97	21.88	2.83	2.25	3.02	8.1	29.28
	2009-10	13.45	1.57	2.28	1.56	5.41	17.29
	<b>2010-11</b>	28.28	4.04	2.16	0.57	6.77	28.28
<b>Percent of NORMAL</b>	1987-88	68%	84%	43%	37%	58%	65%
	1996-97	99%	148%	300%	702%	290%	163%
	2009-10	87%	82%	132%	136%	113%	94%
	<b>2010-11</b>	178%	212%	125%	50%	<b>141%</b>	<b>169%</b>

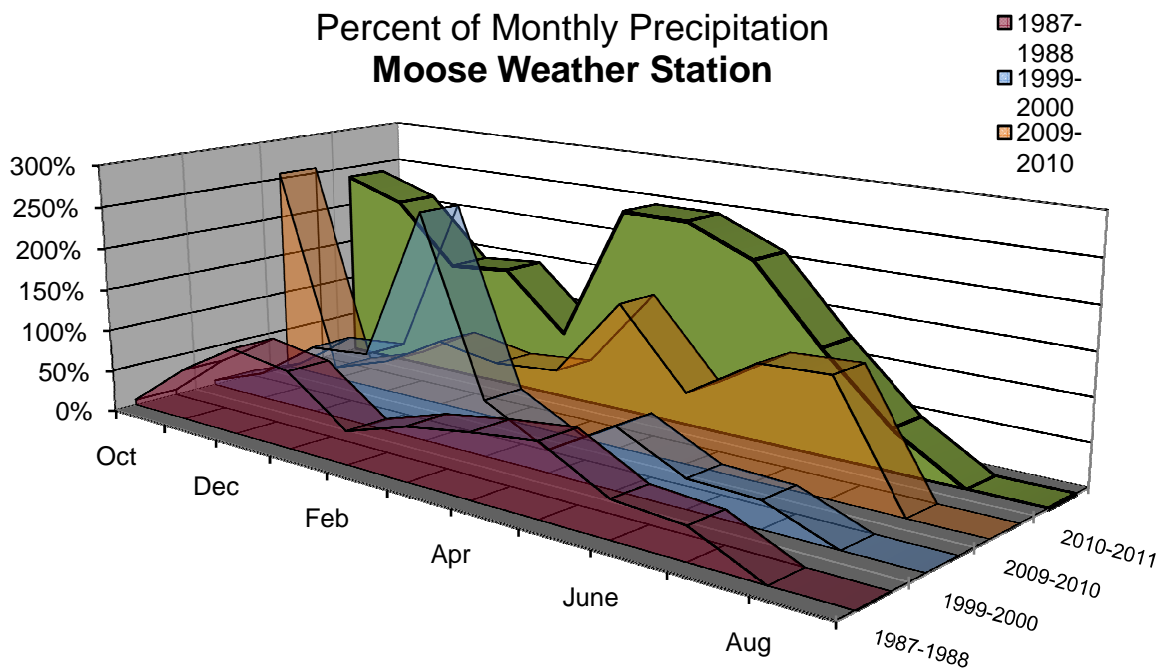
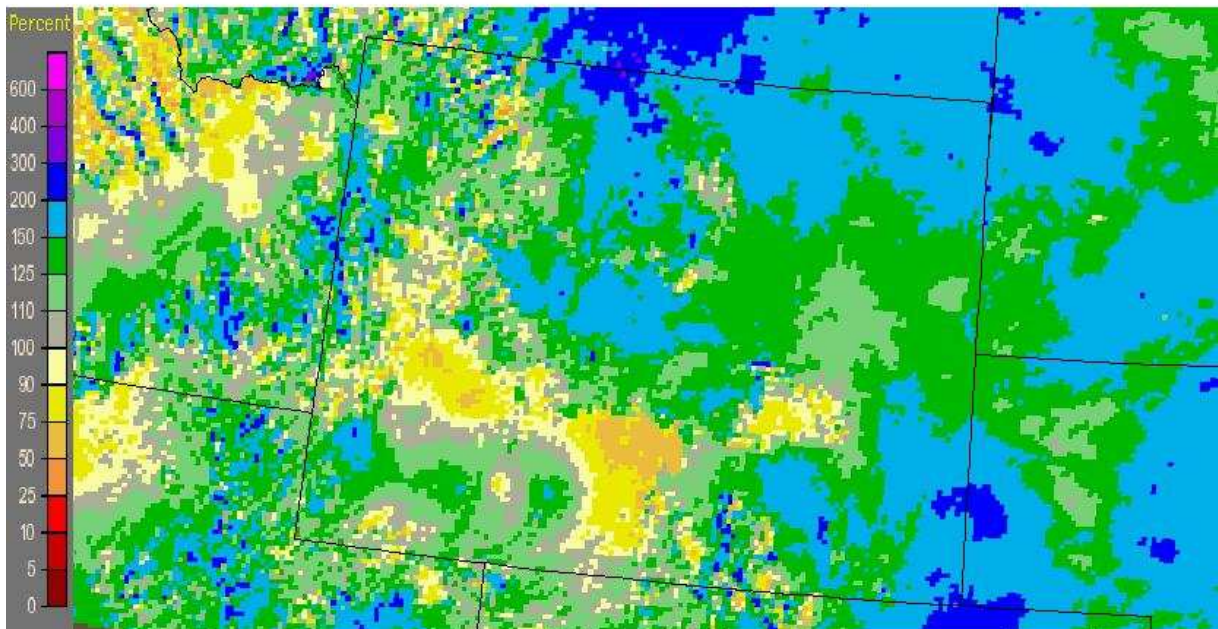


Figure 1b. Wyoming: Current Water-Year, Percent of Normal Precipitation. Most areas in the Teton Interagency Fire zone range from 100-200% of moisture for the water year to date, with some areas to the south and southeast trending below normal. <http://water.weather.gov/precip/>.

Wyoming: Current Water-Year (Oct 1) Percent of Normal Precipitation  
Valid at 7/29/2011 1200 UTC- Created 7/29/11 21:54 UTC



## (2) Area Stream Flow

Throughout the TIDC area, stream flow is at or above normal levels for late July (Figure 2) and area reservoirs are at full capacity. Area streams range from the 80<sup>th</sup> to 98<sup>th</sup> percentiles, with most at or above the 90<sup>th</sup> percentile.

Figure 2. <http://waterwatch.usgs.gov/new/?m=real&r=wy>

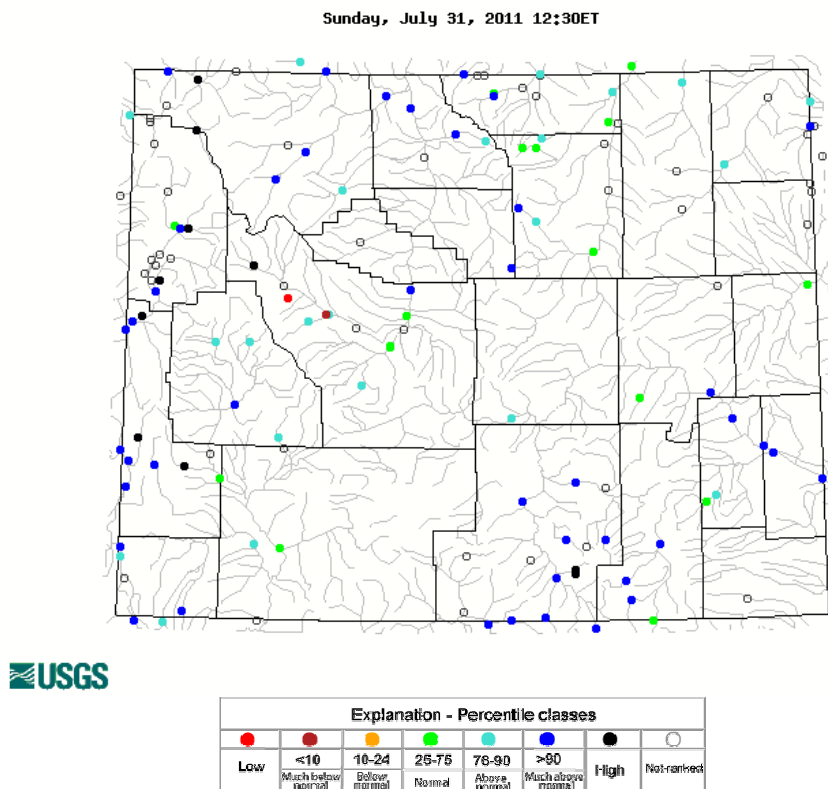
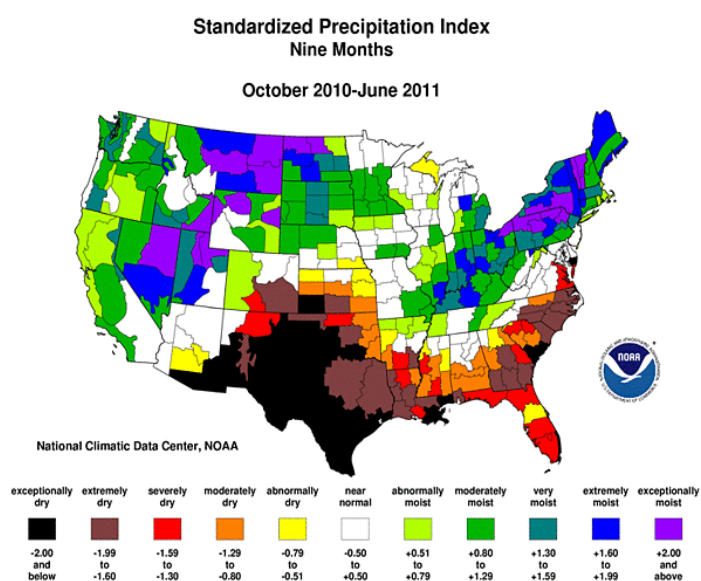


Figure 3. This wet trend is also recorded in the Standardized Precipitation Index (October through June), which documents the long-term transition this year from drought to moister conditions in much of the Rocky Mountain West and Northwest. [http://www.ncdc.noaa.gov/img/climate/research/prelim/drought/spi09\\_pg.gif](http://www.ncdc.noaa.gov/img/climate/research/prelim/drought/spi09_pg.gif)



### (3) Drought Monitor

Lingering drought impacts from prior years have been eliminated as a result of current weather patterns. In the West, the only regions indicating drought are Arizona, New Mexico, and south-central portions of Colorado. (Figure 4, [http://drought.unl.edu/dm/pdfs/west\\_dm.pdf](http://drought.unl.edu/dm/pdfs/west_dm.pdf)).

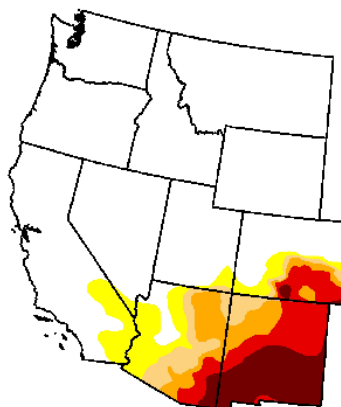
## U.S. Drought Monitor West

July 26, 2011  
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	74.71	25.29	19.01	15.46	11.11	5.55
Last Week (07/19/2011 map)	74.71	25.29	19.01	15.52	11.03	5.59
3 Months Ago (04/26/2011 map)	75.48	24.52	20.07	13.35	7.09	0.00
Start of Calendar Year (12/28/2010 map)	73.26	26.74	11.98	0.89	0.00	0.00
Start of Water Year (09/28/2010 map)	62.50	37.50	8.14	0.56	0.00	0.00
One Year Ago (07/20/2010 map)	68.98	31.02	9.64	0.65	0.00	0.00

#### Intensity:

■ D0 Abnormally Dry      ■ D3 Drought - Extreme  
■ D1 Drought - Moderate      ■ D4 Drought - Exceptional  
■ D2 Drought - Severe



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

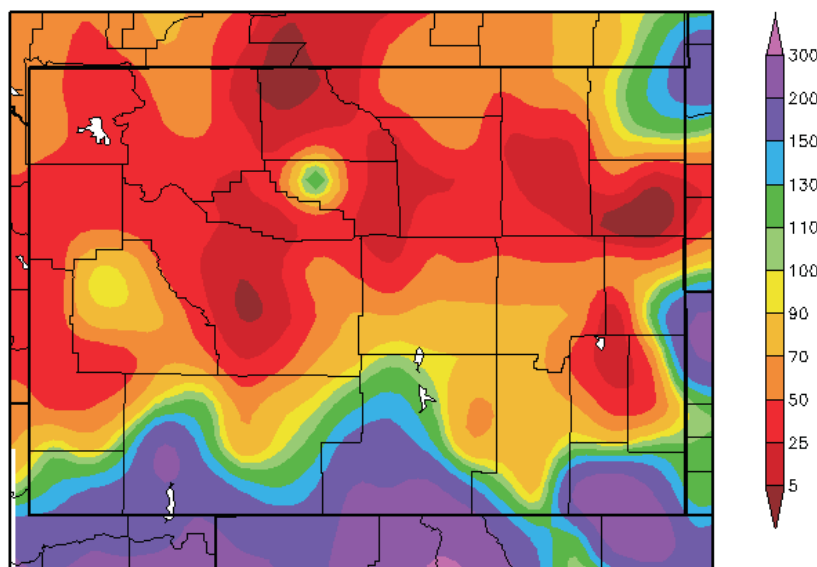


Released Thursday, July 28, 2011  
Brad Rippey, U.S. Department of Agriculture

<http://drought.unl.edu/dm>

In northern Wyoming, though, the past 30 days recorded a shift in moisture patterns in the Wyoming Departures from Normal maps. (Figure 5: [http://www.wrds.uwyo.edu/sco/Graphs\\_Charts/PrecipMaps/WyoPrecip.pdf](http://www.wrds.uwyo.edu/sco/Graphs_Charts/PrecipMaps/WyoPrecip.pdf).)

### Percent of Normal Precipitation (%) 6/25/2011 – 7/24/2011



Generated 7/25/2011 at HPRCC using provisional data.

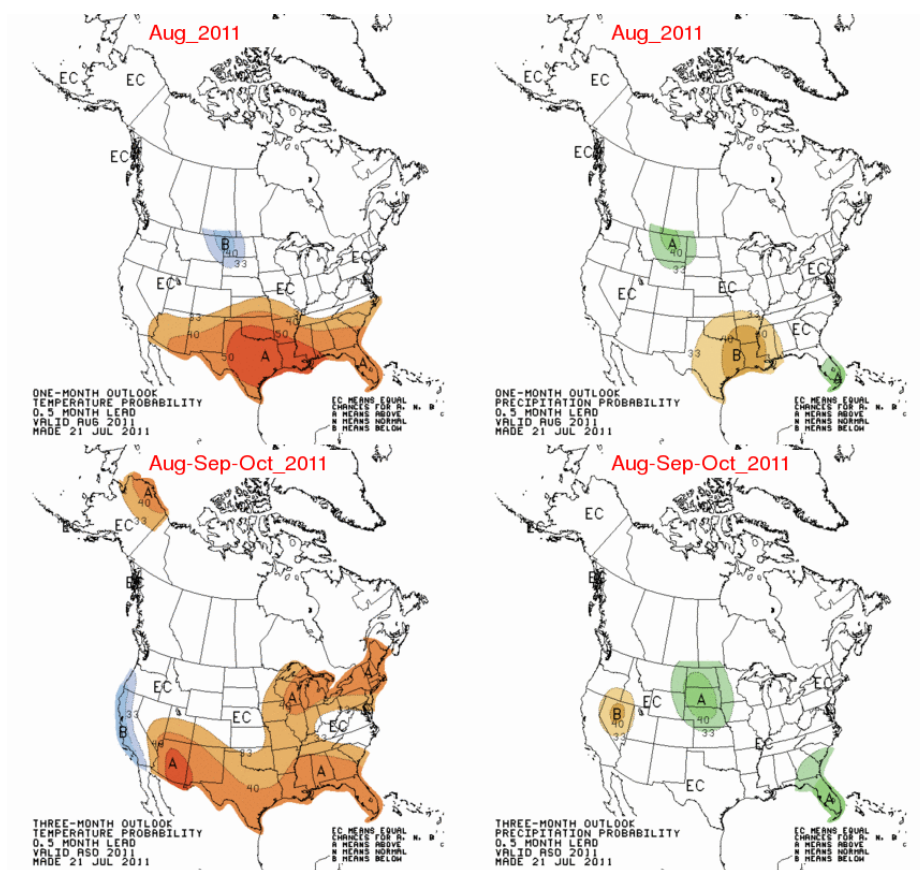
Regional Climate Centers

#### (4) Long-term Temperature and Precipitation Outlook

One-month and three-month outlooks from the Climate Prediction Center outlooks continue to reflect a transition from La Niña conditions to neutral conditions in late summer and into fall. A general warming trend is expected to stay south of Wyoming, with both temperature and precipitation in Wyoming expected to reflect normal climatological patterns for the period.

Figure 5: Temperature and Precipitation Outlook – August and August through October.

[http://www.cpc.ncep.noaa.gov/products/predictions/multi\\_season/13\\_seasonal\\_outlooks/color/page2.gif](http://www.cpc.ncep.noaa.gov/products/predictions/multi_season/13_seasonal_outlooks/color/page2.gif)



#### (5) Fuel Moisture

A fuel moisture sampling program in Grand Teton National Park reflects north zone and mid-elevation fuel conditions. The fuel moisture sampling offers a season-to-season comparison of fuel moisture trends (*Table 2*). This season, live fuels remain green. Some sites show a two-week delay in phenology stages, with observed fuel moistures for August 1 comparable to average moistures for July 15.

In sagebrush sites, live herbaceous grasses are nearing cured status. In conifer stands, a wide variation of conifer fuel moisture denotes a variable response to the wet spring, with some sites below average but the majority greener than average. In contrast, dead and downed logs (1000 hour timelag fuels) are below average for August 1, the result of an extended dry period in July.

Link to National Fuel Moisture Database (Wyoming): [http://72.32.186.224/nfmd/public/states\\_map.php?state=WY](http://72.32.186.224/nfmd/public/states_map.php?state=WY).

Table 2: Current Fuel Moistures for Grand Teton National Park (7 sampling stations).

Fuel Moisture	Prior Year Samples (Average for July 15)		18-year Average for Aug 1	2011 Samples	
	2009	2010		Range	Average
<b>Conifer Sites</b>					
1000 hour fuel moisture	19%	17%	19%	12-27%	<b>17%</b>
Live Woody: Conifer	138%	129%	128%	124-192%	<b>154%</b>
Live Herbaceous: Conifer Understory	139%	172%	150%	124-233%	<b>167%</b>
<b>Sagebrush Sites</b>					
Live Woody: Sagebrush	123%	113%	109%	124-133%	<b>128%</b>
Live Herbaceous: Sage Flats	90%	76%	79%	80-97%	<b>89%</b>

## GEOGRAPHIC AREA OUTLOOKS

The Teton Area fire zone is within the Eastern Great Basin geographic area. Fire seasons in our zone also track with similar conditions in adjacent areas within the Rocky Mountain and Northern Rockies areas. This has been particularly evident during busy fire seasons, when fire behavior trends shared across the Greater Yellowstone Area (GYA), which encompasses an area where these three geographic areas converge.

Current outlooks are published at:

- Eastern Great Basin Dispatch—Daily, 7-day, Monthly Outlooks: <http://gacc.nifc.gov/egbc/outlooks.php>.
- National and Regional outlooks available via “National Wildland Significant Fire Potential Outlook,” National Interagency Fire Center: [http://www.nifc.gov/nicc/predictive/outlooks/monthly\\_seasonal\\_outlook.pdf](http://www.nifc.gov/nicc/predictive/outlooks/monthly_seasonal_outlook.pdf).

## CURRENT FIRE ACTIVITY

### *Fire Activity: Teton Interagency Dispatch Center*

The impact of significant snowpack and spring moisture continues to affect fire season activity, with fire incidence below normal. Early- and mid-season activity has tracked below that of prior moderate years, such as 2004 and 2006. For this fire season, 42 unattended campfires were reported in the TIDC response zone.

Table 3: Year-to-Date Fire Activity (Unplanned Ignitions)

YTD to July 1	Bridger-Teton National Forest		Grand Teton National Park		Other TIDC Response Areas
	Fires	Total Acres	Fires	Total Acres	
2004	6	2	2	0.35	
2005	2	.35	1	0.1	
2006	24	1,959	5	5	
2007	24	12,573	11	6	
2008	13	3,602	0	0	
2009	11	1.5	6	1	
2010	26	1503	2	.2	
<b>AVERAGE</b>	<b>24.3</b>	<b>4064</b>	<b>5.8</b>	<b>41</b>	
<b>CURRENT (to July 31, 2011)</b>	<b>3</b>	<b>5.2</b>	<b>1</b>	<b>0.1</b>	Sublette County: 1 fire, 162 acres

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